

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Sean Xiao-An Zhang et al

Confirmation No.: 1230

Application No.: 09/823195

Examiner: n/a

Filing Date: Mar 29, 2001

Group Art Unit: n/a

Title: Bistable Molecular Mechanical Devices With A Band Gap Change Activated By An Electric Field For Electronic Switching, Gating And Memory Applications

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ( ) under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- (X) under 37 CFR 1.97 (c) together with either a:  
(X) Statement under 37 CFR 1.97(e), or  
( ) a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ( ) under 37 CFR 1.97 (d) together with a:  
( ) Statement under 37 CFR 1.97(e)(1) or (2), and  
( ) a \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account 08-2025 the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25.

(X) Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

- (X) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450. Date of Deposit: 11 Sept. 2003
- ( ) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_
- Number of pages: \_\_\_\_\_

Typed Name: Ramona J. Zaya

Signature: *R. Zaya*

Respectfully submitted,

Sean Xiao-An Zhang et al

By *Susan E. Heminger*

Susan E. Heminger

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Reg. No. 36,449

Date: 11 Sept 2003

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STATEMENT UNDER 37 CFR 1.97(e)


Sir:

The undersigned hereby certifies that either:

- (X) Each item of information contained in the Information Disclosure Statement was cited for the first time in a communication from a foreign patent office in a counterpart foreign application, not more than three months prior to the filing of the statement, or
- ( ) No item of information contained in the Information Disclosure Statement
- was cited in a communication from a foreign patent office in a counterpart foreign application, and
  - to the knowledge of the undersigned, after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56 (c) more than three months prior to the filing of the Information Disclosure Statement.

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Respectfully submitted,  
Sean Xiao-An Zhang et al

By   
Susan E. Heminger  
Attorney/Agent for Applicant(s)  
Reg. No. 36,449

Date: 11 Sept. 2003

Telephone No.: (650) 236-2738

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FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)



ATTY. DOCKET NO.

10010538-1

APPLICATION NO.

09/823,195

CONFIRMATION NO.

1230

APPLICANT

Sean Xiao-An Zhang et al

FILING DATE

Mar 29 2001

GROUP

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	4,180656	25 Dec 1979	Garner
	1B	6,128,214	3 Oct 2000	Kuekes et al
	1C			
	1D			
	1E			
	1F			
	1G			
	1H			
	1I			
	1J			
	1K			

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L	WO02089229	7 Nov 2002	Hewlett Packard Co.	
	1M	WO03016992	27 Feb 2003	Hewlett Packard Co.	
	1N	WO9835271	13 Aug 1998	IBM Corp.	
	1O				
	1P				

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1Q	Roth et al: "Molecular Rectifiers and Transistors based on PI-conjugated materials" "Synthetic Metals, Elsevier Sequoia, Lausanne, Ch vol 94 no. 1, 1998 pages 105-110 XP001004861
1R	Ward M D: "Current Development in Molecular Switches" Chemistry and Industry. Chemistry and Industry Review, Chemical Society Letchworth, GB no. 16, 18 August 1997 pages 640-645 XP00659773
1S	Shimizu: "Molecular Switch and Memory for Organic Electronic Materials" Sen' i Kobunshi Zaiyo Kenkyujo Kenkyu Hokoku-Bulletin of the Research Institute for Polymers and Textiles, Kogyogijutsuin. Sen' i Kobunshi Zaiyo Kenkyujo, Tsukuba, JP no. 141, 1984 pages 21-40 XP0001145548

EXAMINER

/Caridad Everhart/

DATE CONSIDERED

11-5-2004

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## PATENT APPLICATION

Sheet 2 of 2

PCT/US 01/01449

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	2A			
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	2L				
	2M				
	2N				
	2O				
	2P				

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

2Q	Hutchison K A et al: "Chiropticsenses: Molecular Chiroptical Dipole Switches for Optical Data Storage" Proceedings of the SPIE, SPIE, Bellingham, VA, US vol 3937, 2000 pages 64-72 XP009005995
2R	Database CA 'Online Chemical Abstracts Services, Columbus, OH, US; Riesz, E: "Some new benzothiazole derivative sand comparison dyeing with such compounds" retrieved from STN XP-002243303 (1991)
2S	

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